

Wind may be energy solution

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Wind is the world's fastest growing energy source. Wind farms in Texas and California demonstrate that wind power is a profitable, year-round harvest, generating "wind royalties" for landowners and creating opportunities for businesses providing labor, steel, concrete, roads, wind turbine components, and electrical and engineering services. Wind is clean and increasingly cost-competitive with traditional fossil fuel-fired sources, and Utahns need to encourage wind energy development within the state.

Given that Utah's population is expected to grow by 70 percent over the next three decades, now is the time to expand and diversify Utah's energy resources.

Can wind meet all of Utah's future electricity needs? No. Today, coal generates about 95 percent of Utah's electricity, and it will continue to be a key, cost-effective resource. Most of Utah's newest electricity plants, however, use natural gas due to its lower emissions and relative ease for permitting. Shortages around the country, unfortunately, have sent wholesale natural gas prices soaring, and Utahns are now bracing for higher electricity and

heating bills.

Wind power can help temper energy prices. Wind energy prices are stable because they are based primarily on the up-front costs of installing wind turbines and equipment. Unlike coal and natural gas, wind is free and inexhaustible. What's preventing Utah from embracing the wind? Perhaps it's some persistent misperceptions.

1. Wind is unpredictable. Some believe that because wind is intermittent, every megawatt (MW) of wind capacity (one MW supports about 450 homes) needs to be "backed up" with a MW of coal or natural gas capacity that can be "switched on" when the wind doesn't blow. Not true. Utah's electricity comes from a grid supported by numerous generating plants moving on- and off-line to meet constantly shifting demand.

2. Utah doesn't have enough wind. Among the 50 states, North Dakota is the windiest state, and Utah ranks in the middle. Rankings, however, don't tell the whole story. On paper, North Dakota's wind capacity could meet more than a third of America's electricity needs. A lack of transmission infrastructure, however, makes its wind largely inaccessible. Most states, however, have accessible regional "pockets of wind" that can be harvested. About 800 MW of cost-effective pockets of wind exist in Beaver, Box Elder, Duchesne, Garfield, Millard,

Morgan, Piute, Rich, San Juan, Tooele, Utah, and Wayne counties. A 100 MW wind farm of approximately 50 wind turbines would attract investments of about \$100 million, creating jobs, royalties for landowners and an improved property tax base to fund schools and local services.

3. Wind power needs subsidies to be cost-effective. Wind energy producers currently receive a federal tax credit of 1.8 cents for every kilowatt they generate for 10 years. Though set to expire at the end of 2003, the incentive is expected to be renewed by Congress. Wind subsidies, however, pale in light of subsidies invested into fossil fuels and nuclear power over the past century.

On balance, all energy resources have advantages and challenges. Coal is inexpensive but faces increasing environmental compliance costs. Natural gas is cleaner but is price volatile and increasingly in short supply. Wind is clean, has no fuel costs but is intermittent. Hydroelectricity is inexpensive, but is less feasible during droughts and has limited opportunities for expansion. Utah needs to develop a portfolio of resources for a reliable, affordable and cleaner energy system. Wind should be a part of that portfolio.

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